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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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MORGAN, LEWIS & BOCKIUS, LLP.  
2 PALO ALTO SQUARE  
3000 EL CAMINO REAL  
PALO ALTO, CA 94306

EXAMINER

MANCHO, RONNIE M

ART UNIT PAPER NUMBER

3663

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/750,689

Applicant(s)

NA, JUNG-WOOK

Examiner

Ronnie Mancho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-8 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/29/04.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the applicant cites “determining a standard time period in response to an intake air quantity”. It is not clear if the applicant is claiming --determining a period of time when an intake air reaches a given quantity or temperature and when a water temperature reaches a given temperature -- or something else.

In claim 3, the limitation “the countdown of the standard time period is performed by one step for every predetermined amount” is not clear.

The rest of the claims are rejected for depending on rejected claim 1.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Yanaki et al (US Pub 2002/0161495).

5. Regarding claim 1, Yamaki et al (fig. 5; sections 0095, 0195, 0198, 0203) disclose a thermostat failure diagnosis method comprising the steps of:

determining a standard time period in response to an intake air quantity and a cooling water temperature (sections 0095, 0195, 0198, 0203);

counting down until the standard time period reaches zero (sections 0095, 0195, 0198, 0203);

detecting a cooling water temperature and storing same when the standard time period reaches zero (sections 0095, 0195, 0198, 0203);

correcting a target temperature accounting for the influence of a head wind (sections 0095, 0195, 0198, 0203); and

comparing the stored cooling water temperature with the corrected target temperature to determine whether or not a thermostat has failed (0095, 0195).

Regarding claim 2, Yamaki et al (fig. 5; sections 0095, 0195, 0198, 0203) disclose the method as defined in claim 1 further comprising a step of determining whether a thermostat failure diagnosis condition is met and carrying out the thermostat failure diagnosis only if the condition is met, wherein the thermostat failure diagnosis condition is previously defined using a cooling water temperature during the start of the engine, an intake air temperature during the start of the engine, and the intake air quantity as factors.

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Regarding claim 3, Yamaki et al (fig. 5; sections 0095, 0195, 0198, 0203) disclose the method as defined in claim 1, wherein the countdown of the standard time period is performed by one step for every predetermined amount of time.

Regarding claim 4, Yamaki et al (fig. 5; sections 0095, 0195, 0198, 0203) disclose the method as defined in claim 1, wherein: the step of determining the standard time period further comprises the step of determining the standard time period in response to the intake air quantity and cooling water temperature if the thermostat failure diagnosis condition is met; and the step of counting down further comprises the step of re-adjusting the standard time period in response to the changed intake air quantity and the cooling water temperature thereof when the intake air quantity is changed during the countdown.

Regarding claim 5, Yamaki et al (fig. 5; sections 0095, 0195, 0198, 0203) disclose the method as defined in claim 4, wherein the standard time period re-adjusting step further comprises a step of comparing the standard time period remaining after countdown, just before the intake air quantity is changed, with a standard time period determined in response to the changed intake air quantity and cooling water temperature thereof to determine a larger time as a new standard time period and to continue the counting down step using the new standard time period.

Regarding claim 6, Yamaki et al (fig. 5; sections 0095, 0195, 0198, 0203) disclose the method as defined in claim 1, wherein the correcting step further comprises the steps of: calculating an average vehicle speed; determining a correction constant in response to intake air temperature and the average vehicle speed; and multiplying the correction constant by the target temperature to determine the corrected target temperature.

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Regarding claim 7, Yamaki et al (fig. 5; sections 0095, 0195, 0198, 0203) disclose the method as defined in claim 6, wherein the correction constant is stored in a map table such that the correction constant is based on the intake air temperature and the average vehicle speed.

Regarding claim 8, Yamaki et al (fig. 5; sections 0095, 0195, 0198, 0203) disclose the method as defined in claim 1, wherein the thermostat failure diagnosing step further comprises a step of determining that the thermostat has failed if the stored cooling water temperature is less than the corrected target temperature, and determining that the thermostat is functioning properly if the stored cooling water temperature is above the corrected target temperature.

### *Communication*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronnie Mancho whose telephone number is 571/272/6984. The examiner can normally be reached on Mon-Thurs; 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571/272/6984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronnie Mancho  
Examiner  
Art Unit 3663

9/30/05

  
JACK KEITH  
PRIMARY EXAMINER  
SP 3663